

A Weigh We Go

Reporting Category Measurement

Topic Measuring weight/mass

Materials

- Three scales for measuring pounds and ounces
- Three scales for measuring kilograms and grams
- A one-pound object and two other objects of different U.S. Customary weights
- A one-kilogram object and two other objects of different metric weights
- Six signs: "Customary Station 1," "Customary Station 2," "Customary Station 3," "Metric Station 1," "Metric Station 2," "Metric Station 3"
- Dictionary
- A-Weigh-We-Go Recording Sheets (attached)

Vocabulary

weight, mass, customary, metric, pound, ounce, gram, kilogram

Student/Teacher Actions (what students and teachers should be doing to facilitate learning)

1. Set up six weighing stations with scales for students to use to find the weights/masses of familiar objects. Use signs to identify the stations.
2. Write the words *weight* and *mass* on the board, and ask students to think about what these words mean. Then, allow them to share their ideas with partners in a Think-Pair-Share strategy. Ask where they can find the definitions of unfamiliar words (dictionary). Have a student use the dictionary to find and read aloud the definitions of *weight* and *mass*. If necessary, reword the definitions so students can better understand them, and write them on the board.
3. Show students an object that weighs one pound. Model how to weigh the object by reading the scale and recording the measurement. Write on the board, "The ____ weighs 1 pound." Pass the object around so that each student may feel the weight of one pound. Repeat this process with an object that weighs one ounce. Have the class brainstorm other objects that might weigh one pound or one ounce. Record the suggested objects on the board under the previously written sentences.
4. Explain to students that just as we can use U.S. Customary units of measure (feet, inches) or metric units of measure (meters, centimeters) to measure the length of an object, we can use pounds and ounces (U.S. Customary units) or kilograms and grams (metric units) to measure weight/mass.
5. Repeat step 3, using objects that weigh one kilogram and one gram.

6. Explain to students that they will be working in six groups to rotate through six weighing stations. They will estimate the weight/mass of each of six familiar objects and then measure the weight/mass of each object to determine the accuracy of their estimates. Distribute copies of the two A-Weigh-We-Go Recording Sheets to each student. Put students into six groups, and send each group to one of the six weighing stations. Monitor groups as they work, and have them rotate, as needed. Have students record their work on their recording sheets.
7. Review and summarize with the class what students did and learned in the activity. Gather the objects from each center. Hold up one object at a time, and ask students to share what they learned about the weight/mass of that object. Have the class determine the weight/mass of each object.

Assessment

- **Questions**
 - Did any of the objects weigh exactly one pound? Exactly one ounce? Exactly one gram? Exactly one kilogram?
 - About how many ounces equal one pound?
 - About how many grams equal one kilogram?
 - Why is it important to record the kind of units we are using when we measure something?
 - How did you make your estimates? What strategies did you use?
- **Journal/Writing Prompts**
 - You are cleaning out your desk. Estimate and record the weight/mass of each of five objects that you found. Which object has the greatest weight/mass?
 - Jim needs to buy 2 pounds of apples. If each apple weighs exactly 8 ounces, how many apples does Jim need to buy? How do you know? Explain your reasoning.

Extensions and Connections (for all students)

- Have students determine how many ounces are in 1 pound by placing 1-ounce objects on a scale until the scale reads 1 pound.
- Have students determine how many grams are in 1 kilogram by placing 1-gram objects on a scale until the scale reads 1 kilogram.
- Create a bulletin board divided into four sections with the labels, "Ounce," "Pound," "Gram," and "Kilogram." Provide students with a basket full of images of familiar objects. Have each student select an image from the basket, decide to which group the depicted object belongs, and write a sentence explaining his/her reasoning about why the object belongs in that group (e.g., "The paper clip belongs in the gram group because I think it weighs about 1 gram, just like the bean we measured earlier."). Have students pin their images and sentences in the appropriate groups on the bulletin board.
- Create a similar sorting activity using interactive technology.

Strategies for Differentiation

- Provide students with four objects weighing exactly 1 ounce, 1 pound, 1 gram, and 1 kilogram, respectively. Have students compare the weights/masses of the four objects by holding them in their hands.

- When listing objects that are of similar weights/masses, use *very* familiar objects (e.g., a can of beans weighs about 1 pound).

A-Weigh-We-Go Recording Sheet

Name _____

Customary Station 1

Object 1 _____	My Estimate	My Measurement
Object 2 _____	My Estimate	My Measurement
Object 3 _____	My Estimate	My Measurement

Customary Station 2

Object 1 _____	My Estimate	My Measurement
Object 2 _____	My Estimate	My Measurement
Object 3 _____	My Estimate	My Measurement

Customary Station 3

Object 1 _____	My Estimate	My Measurement
Object 2 _____	My Estimate	My Measurement
Object 3 _____	My Estimate	My Measurement

A-Weigh-We-Go Recording Sheet

Name _____

Metric Station 1

Object 1 _____	My Estimate	My Measurement
Object 2 _____	My Estimate	My Measurement
Object 3 _____	My Estimate	My Measurement

Metric Station 2

Object 1 _____	My Estimate	My Measurement
Object 2 _____	My Estimate	My Measurement
Object 3 _____	My Estimate	My Measurement

Metric Station 3

Object 1 _____	My Estimate	My Measurement
Object 2 _____	My Estimate	My Measurement
Object 3 _____	My Estimate	My Measurement